

What is claimed is:

1. A method for preparing a fusion polypeptide comprising epidermal growth factor (EGF) and human serum albumin in a plant, which comprises the steps of:

5 (a) transforming plant cells with a polynucleotide sequence comprising:

(i) a nucleotide sequence encoding said fusion polypeptide comprising EGF and human serum albumin linked to the C-terminal or N-terminal of said EGF; and in which 10 the stability of said EGF is enhanced by virtue of said human serum albumin;

(ii) a promoter that functions in plant cells to cause the production of an RNA molecule operably linked to the nucleotide sequence of (i); and

15 (iii) a 3'-non-translated region that functions in plant cells to cause the polyadenylation of the 3'-end of said RNA molecule;

(b) selecting transformed plant cells;

(c) regenerating a plant from said transformed cells; and

20 (d) recovering from said regenerated plant said fusion polypeptide.

2. The method according to claim 1, wherein said plant is *Nicotiana tabacum*, *Cucumis melo*, *Curcumis sativa*, *Citrullus vulgaris* or *Brassica campestris*.

3. The method according to claim 1, wherein a nucleotide sequence of said EGF comprises nucleotide 1-159 as set forth in SEQ ID NO:1.

4. The method according to claim 1, wherein said human serum albumin is linked to the C-terminal of said EGF.

5 5. A method for preparing a fusion polypeptide comprising EGF and human serum albumin in a plant, which comprises the steps of:

10 (a) inoculating an explant material from said plant with *Agrobacterium tumefaciens* harboring a vector, in which said vector is capable of inserting into a genome of a cell from said plant and contains the following nucleotide sequences:

15 (i) a nucleotide sequence encoding said fusion polypeptide comprising EGF and human serum albumin linked to the C-terminal or N-terminal of said EGF; and in which the stability of said EGF is enhanced by virtue of said human serum albumin;

20 (ii) a promoter that functions in plant cells to cause the production of an RNA molecule operably linked to the nucleotide sequence of (i); and

(iii) a 3'-non-translated region that functions in plant cells to cause the polyadenylation of the 3'-end of said RNA molecule;

25 (b) regenerating the inoculated explant material on a regeneration medium to obtain regenerated shoots;

(c) culturing said regenerated shoots on a rooting medium to obtain a transformed plant, in which said transformed plant is capable of expressing said nucleotide sequence of (i); and

(d) recovering from said transformed plant said fusion polypeptide.

6. The method according to claim 5, wherein said plant is
5 *Nicotiana tabacum*, *Cucumis melo*, *Curcumis sativa*, *Citrullus vulgaris* or *Brassica campestris*.

7. The method according to claim 5, wherein a nucleotide sequence of said EGF comprises nucleotide 1-159 as set forth in
10 SEQ ID NO:1.

8. The method according to claim 5, wherein said human serum albumin is linked to the C-terminal of said EGF.